

Patent claims

1. A device (10) for the application of at least two liquid to pasty application media (22, 23) to one or both sides of a moving surface, having a curtain applicator (13, 204) for applying the application media (22, 23), the curtain applicator (13, 204) discharging the application media (22, 23) onto the moving surface as curtains (11, 12) moving substantially under the force of gravity, and the surface in the case of direct application being the surface of a material web (102), in particular of paper or board, and in the case of indirect application being the surface of a transfer element, for example an applicator roll, which transfers the application media to the surface of the material web (102), **characterized in that** a collecting device (16, 20) for the separate collection of each application medium (22, 23) is provided between the curtain applicator (13, 204) and the material web (102), it being possible for the curtain applicator (13, 204) and the collecting device (16, 20) to be moved relative to each other.
2. The device (10) as claimed in claim 1, **characterized in that** the collecting device (16, 20) is assigned a discharge device (17, 21).
3. The device (10) as claimed in claim 2, **characterized in that** the collecting device (16, 20) has discharge openings (26) to pass on the application media (22, 23) to the discharge device (17, 21).
4. The device (10) as claimed in one of claims 1 to 3, **characterized in that** the collecting device (16, 20) is provided with inclines (27) arranged

- 12 -

above the discharge openings (26), in order to lead the application media (22, 23) to the discharge openings (26).

5 5. The device (10) as claimed in one of claims 1 to 4, **characterized in that** the collecting device (16, 20) is subdivided into a plurality of mutually adjacent sections (14, 15, 24, 25), each of the sections (14, 15, 24, 25) holding only one
10 application medium (22, 23).

6. The device (10) as claimed in claim 5, **characterized in that** the mutually adjacent sections (14, 15, 24, 25) are separated from one
15 another by a separating element (28).

7. The device (10) as claimed in claim 5, **characterized in that** the mutually adjacent sections (14, 15, 24, 25) are constructed in the
20 manner of channels with curved longitudinal wall surfaces, which meet one another in the transverse machine direction and thus form the separating element (28).

25 8. The device (10) as claimed in claim 5 or 6, **characterized in that** the discharge openings (26) of the one section (14, 15, 24, 25) are offset in relation to discharge openings (26) of the adjacent section (14, 15, 24, 25).
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9. The device (10) as claimed in one of claims 2 to 8, **characterized in that** the discharge device (17, 21) has a discharge plate (18, 201), at the end of which there is arranged a separate drainage
35 channel (19, 100, 202, 203) for each application medium (22, 23).

- 13 -

10. The device (10) as claimed in claim 8, **characterized in that** the discharge plate (18, 201) has at least one separate channel (29, 200) for each application medium (22, 23).

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11. The device (10) as claimed in claim 10, **characterized in that** at least one channel (200) of the discharge plate (201) bridges at least one of the drainage channels (19, 202).

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12. The device (16) as claimed in claim 10, **characterized in that** the drainage channels (19, 100, 202, 203), seen in the transverse direction of the device (10), are arranged beside one another and each of these drainage channels (19, 100, 202, 203), separately from one another, picks up the application medium (22, 23) resulting from the respective section (14, 15, 24, 25) of the collecting device (16, 20) and discharges it to the outside of the device (10).

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13. The device (10) as claimed in claim 10 or 11, **characterized in that** the channels (29, 200) are fabricated separately from one another or comprise any desired channel cross-sectional shapes lined up in a row.

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14. The device (10) as claimed in one of claims 9 to 13, **characterized in that** the discharge plate (18, 201) or the channel (29, 200) and at least the drainage channel (100) has a gradient.

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15. The device (10) as claimed in one of claims 2 to 14, **characterized in that** the application media (22, 23) can be carried away to the side on which the drives (drive side) are placed.

- 14 -

16. The device (10) as claimed in one of claims 2 to 15, **characterized in that** the collecting device (16, 20) and the discharge device (17, 21) are formed in one piece.

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17. The device (10) as claimed in one of claims 2 to 16, **characterized in that** the collecting device (16, 20) and the discharge device (17, 21) are separate components.

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18. The device (10) as claimed in one of claims 5 to 17, **characterized in that** the collecting device (16, 20) has two sections (14, 15, 24, 25) which can be moved in opposite directions in the 15 longitudinal direction of the material web (102).

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19. The device (10) as claimed in one of claims 1 to 17, **characterized in that** a lower collecting device (101) is arranged under the material web (102).

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20. The device (10) as claimed in claim 19, **characterized in that** the application media (22, 23) can be collected separately by the lower collecting device (101).

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21. The device (10) as claimed in claim 20, **characterized in that** the lower collecting device (101) has a separate channel for each application medium (22, 23).